CLAIMS

What is claimed is:

1.   A method of displaying a vertical situation of a vehicle, the method comprising the steps of:

generating one profile view frame;

in the profile view frame, beginning a first vertical profile view of a first track of the vehicle at about a point in the profile view frame indicative of a current position of the vehicle;

ending said first vertical profile view of the current track at about a point in the profile view frame indicative of a predetermined location; and

extending a second vertical profile view of a second track of the vehicle from about the point in the profile view frame indicative of the predetermined location,

wherein the first track is a current track and the second track is a planned track.

2.   The method of claim 1, further comprising the step of first determining the predetermined location.

3.   The method of claim 2, wherein said step of determining the predetermined location comprises determining a location relating to an intersection of the first track of the vehicle and the second track of the vehicle.

4.   The method of claim 2, wherein said step of determining the predetermined location comprises determining a location corresponding to a predicted engagement of an autonomous navigator that is configured to steer the vehicle substantially along said planned track.

5.   The method of claim 1, further comprising the step of replacing said second vertical profile view of said second track with said first vertical profile view of said first track if the predetermined location is unknown.

6.   The method of claim 1, wherein said vehicle is an aircraft.

7.   An apparatus for displaying a vertical situation of a vehicle, comprising:

      a display that is configured to generate a visual representation of the vertical situation of the vehicle; and

      a processor that is configured to at least partially control said display during presentation of the vertical situation of the vehicle, said processor configured to at least partially control said display to:

      generate one profile view frame;

      begin a first vertical profile view of a first track of the vehicle at about a point in the profile view frame indicative of a current position of the vehicle;

      end said first vertical profile view of the current track at about a point in the profile view frame indicative of a predetermined location; and

      extend a second vertical profile view of a planned track of the vehicle from about the point in the profile view frame indicative of the predetermined location.

8.   The apparatus of claim 7, wherein the processor is further configured to determine the predetermined location.

9.   The apparatus of claim 7, wherein the first track is a current track and the second track is a planned track.

10.   The apparatus of claim 8, wherein the processor is further configured to determine a location relating to an intersection of the first track of the vehicle and the second track of the vehicle.

11.   The apparatus of claim 10, wherein the vehicle comprises an autonomous navigation system, the processor comprising the processor further configured to predict a point of engagement of the autonomous navigation system as the predetermined location.

12.   The apparatus of claim 11, wherein the autonomous navigation system comprises an autopilot including navigation logic.

13. The apparatus of claim 12, wherein the processor is further configured to access the logic within the autopilot to predict the point of autopilot engagement.

14. The apparatus of claim 8, further comprising a memory coupled to the processor, the memory configured to store a navigation plan including a navigation plan track.

15. The apparatus of claim 14, wherein the processor is further configured to determine a point of intersection between the current track of the vehicle and the navigation plan track.

16. The apparatus of claim 15, wherein the processor is further configured to determine the predetermined location at least in part by using the point of intersection as a way-point in the navigation plan.

17. The apparatus of claim 8, wherein the vertical profile view frame comprises the vertical profile view frame associated with a lateral situation display having a predetermined range limit, wherein the second profile view extends from the predetermined location to the predetermined range limit obtained from the associated lateral situation display.

18. The apparatus of claim 8, wherein the processor is further configured to display only a first profile view for a current track when no predetermined location can be determined.

19. The apparatus of claim 18, wherein the processor is further configured to display only a second profile view for a planned track when no predicted point can be determined and the vehicle is under the control of an autonomous navigation system.

20. The apparatus of claim 8, wherein the processor is further configured to display only an along-current track profile view from a current vehicle position onward when the autopilot is not energized.

21. The apparatus of claim 7, wherein the vehicle comprises an aircraft.

22. The apparatus of claim 21, wherein the display comprises a multifunctional flight display.

23.   A program product comprising:

    (A) a vertical situation display program executable to generate a profile view frame containing a first track profile view from about a current vehicle position to about a predetermined location, together with a profile view of a second track of the vehicle extending from the predetermined location onward;
        and

    (B) signal bearing media bearing the vertical situation display program.

24.   The program product of claim 23, wherein the vertical situation display program comprises code further executable to determine the predetermined location.

25.   The program product of claim 24, wherein the vehicle comprises an autonomous navigation system, the vertical situation display program comprising code further executable to predict a point of engagement of the autonomous navigation system.

26.   The program product of claim 25, wherein the autonomous navigation system includes navigation logic, wherein the vertical situation display program comprises code further executable to access the navigation logic of the autonomous navigation system.

27.   The program product of claim 24, wherein the vertical situation display program comprises code further executable to determine an intersection of the first vehicle track and a second vehicle track.

28.   The program product of claim 24, wherein the vertical situation display program comprises a program adapted for an aircraft.